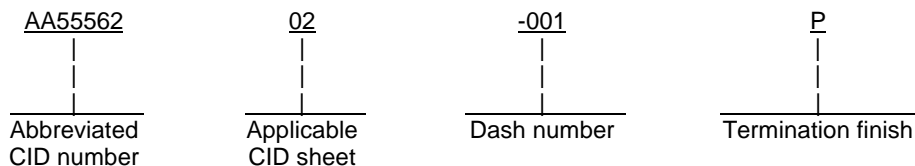


COMMERCIAL ITEM DESCRIPTION

RESISTOR, VOLTAGE SENSITIVE (VARISTOR, METAL OXIDE), CHIP, STYLE 0805

The General Services Administration has authorized the use of this commercial item description (CID) for all federal agencies.

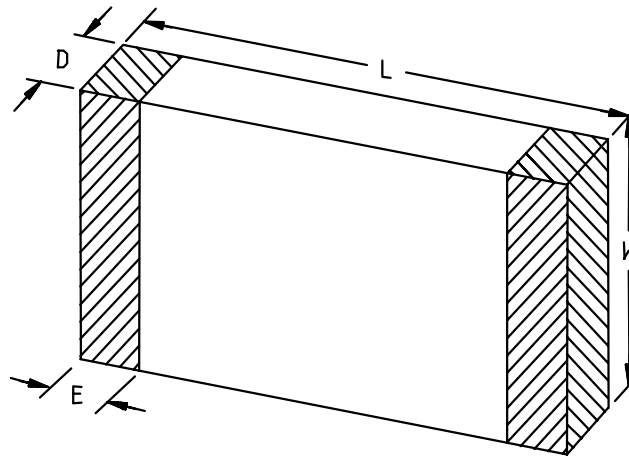
1. **SCOPE.** This CID covers the requirements for a surface-mount, voltage sensitive resistor, style 0805. Varistors by this CID are intended for commercial/industrial applications.
2. **CLASSIFICATION.** This CID uses a classification system which is included in the Part or Identification Number (PIN) (see 7.1). The PIN shall be AA5556202- (plus a dash number from table I). Complete PIN example: AA5556202-001P.



3. SALIENT CHARACTERISTICS

- 3.1 Interface and physical dimensions. Interface and physical dimensions shall be as specified herein (see figure 1).
- 3.2 Working voltage (dc). The working voltage (dc) shall be as specified in table I.
- 3.3 Breakdown voltage. The breakdown voltage shall be as specified in table I.
- 3.4 Clamping voltage. The clamping voltage shall be as specified in table I.
- 3.5 Peak current. The peak current shall be as specified in table I.
- 3.6 Transient energy. The transient voltage shall be as specified in table I.
- 3.7 Capacitance. The capacitance shall be as specified in table I.
- 3.8 Inductance. The inductance shall be as specified in table I.
- 3.9 Termination finish. The termination finish shall be Nickel barrier with Tin alloy plated finish (Ni/Sn), code letter P.

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Defense Supply Center, Columbus, ATTN: DSCC-VAT, Post Office Box 3990, Columbus, OH 43216-5000 by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.



L	W	D	E
2.01 ± 0.2	1.25 ± 0.2	1.02 max	0.71 max

mm	Inches
0.2	0.01
0.71	0.028
1.02	0.040
1.25	0.049
2.01	0.079

NOTES:

1. Dimensions are in millimeters. Inch-pound equivalents are given for information only.
2. The US government preferred system of measurement is the metric SI system. However, this item was originally designed using inch-pound units of measurement. In the event of conflict between the metric and inch-pound units, the inch-pound units shall take precedence.

Figure 1. Interface and physical dimensions, style 0805.

TABLE I. Performance characteristics.

Dash number	Working Voltage (dc) max	Breakdown voltage	Clamping Voltage (max) <u>1/</u>	Peak current A (max)	Transient energy Joule (max)	Cap (pF) typical		Inductance (nH) typical
Test Condition	<50 μ A	1 mA dc	8/20 μ s	8/20 μ s	10/1000 μ s	0.5 V rms @		di/dt= 100 mA/ns
						1 kHz	1 MHz	
001P	3.3 <u>2/</u>	4.1 – 6.0	10	40	0.1	1300	930	<1.5
002P	3.3 <u>2/</u>	3.7 - 5.6	10	120	0.3	5500	4000	1.5
003P	5.6	7.6 - 9.3	15.5	40	0.1	1250	860	<1.5
004P	5.6	7.1 - 8.7	15.5	120	0.3	3500	2400	1.5
005P	12	14.0 - 18.3	25	40	0.1	525	400	<1.5
006P	14.0	16.5 - 20.3	30	40	0.1	375	280	<1.5
007P	14.0	15.9 - 19.4	30	120	0.3	1100	820	1.5
008P	18.0 <u>3/</u>	22.9 - 28.0	40	30	0.1	350	275	<1.5
009P	18.0 <u>3/</u>	22.5 - 27.5	40	100	0.3	650	500	1.5
010P	26.0	31.0 - 37.9	58	30	0.1	140	110	<1.5
011P	26.0	31.5 - 37.3	58	100	0.3	250	190	1.5
012P	30.0	37.0 - 46.0	65	30	0.1	100	80	<1.5
013P	9.0	11.0 – 14.0	20	40	0.1	780	585	<1.5

1/	Maximum peak voltage across the varistor measured at a specified pulse current and waveform.
Transient Energy Rating	Pulse Current and Waveform

0.1 Joule
0.2-0.3 Joules

Pulse Current and Waveform

2A 8/20 μ s5A 8/20 μ s

2/ Test condition $<100\mu\text{A}$

3/ Withstands 24.5 VDC for 5 minutes (automotive applications)

4. **REGULATORY REQUIREMENTS.** This section is not applicable to this CID.

5. **PRODUCT CONFORMANCE PROVISIONS.** Product conformance provisions shall be as specified in A-A-55562.

6. PACKAGING. Packaging shall be as specified in A-A-55562.

7. NOTES

7.1 **PIN**. The PIN should be used for Government purposes to buy commercial products to this CID. See section 2 for PIN format example.

7.2 Commercial and Government Entity (CAGE) code. For ordering purposes, inventory control, and submission of these varistors to DSCC under the Military Parts Control Advisory Group (MPCAG) evaluation program, CAGE code 58536 should be used.

A-A-55562/2A

7.3 Source of document.

Commercial Item Description

A-A-55562 - Resistor, Voltage Sensitive (Varistor, Metal Oxide), Chip.

(Copies of commercial item descriptions are available from the Document Automation and Production Service (DAPS), Building 4D (DPM-DODSSP), 700 Robbins Avenue, Philadelphia, PA 19111-5094.)

7.4 Ordering data. Ordering data shall be as specified in A-A-55562.

7.5 Commercial products. As part of the market analysis and research effort, this CID was coordinated with the following manufacturers of commercial products. At the time of CID preparation and coordination, these manufacturers were known to have commercial products that would meet the requirements of this CID. (NOTE: This information should not be considered as a list of approved manufacturers or be used to restrict procurement to only the manufacturers shown.)

MFG's CAGE	MFG's name and address
16299	AVX Corporation 3900 Electronics Dr. Raleigh, NC 27604-1698 (919) 878-6200

7.6 Part number (P/N) supersession data. These CID part numbers supersede the following MFR's P/N's as shown. This information is being provided to assist in reducing proliferation in the Government inventory system.

CID dash number (see table I) AA5556202-	MFG's P/N ^{1/} for CAGE 16299
001P	VC080503A100
002P	VC080503C100
003P	VC080505A150
004P	VC080505C150
005P	VC080512A250
006P	VC080514A300
007P	VC080514C300
008P	VC080518A400
009P	VC080518C400
010P	VC080526A580
011P	VC080526C580
012P	VC080530A650
013P	VC080509A200

^{1/} The manufacturer's P/N shall not be used for procurement to the requirements of this CID. At the time of preparation of this CID, the aforementioned commercial products were reviewed and could be replaced by the CID PIN shown. For actual part marking requirements see the marking paragraph.

7.7 Government users. To acquire information on obtaining these varistors from the Government inventory system, contact Defense Supply Center, Columbus, ATTN: DSCC-CP, P. O. Box 3990, Columbus, OH 43216-5000, or telephone (614) 692-7684.

MILITARY INTERESTS:

Custodians:
NAVY-EC
DLA-CC

CIVIL AGENCY COORDINATING ACTIVITY:

GSA - 7FXE

Preparing Activity:

DLA-CC

Project 5905-1614-02